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## *Ramaria abietina*: A rare Coral Fungus

### Introduction

It is quite common for rare or undescribed species of fungi to be found on forays or by searching. In this case, the discovery was unusual—an email with photograph was sent to Pat and Ed Grey via a friends group. The find was made by Marc Campobasso and, from Marc's photograph, the fungus was identified as the Green-staining Coral *Ramaria abietina* (Figs 1 and 2).

This species is apparently rarely found in Australia, although it is known from the northern hemisphere. The find aroused the interest of Dr Tom May, Dr Teresa Lebel (both from RBG Victorai) and Tony Young in Queensland. The Atlas of Living Australia (2015) shows only four collections – one from New South Wales (Bradley's Head, Sydney) and two from South Australia (from the same locality, Meningie near The Coorong) and one very recently uploaded, undated observation from Point Addis near Anglesea in Victoria. Young (2014) has an entry for the species in his online treatment of the Australian species of *Ramaria*, mentioning additional collections from Lane Cove, Sydney, and noting that there are few descriptive details available on Australian collections.

An arrangement was made with Marc Campobasso to meet at the site in order to make a collection from which a written description could be prepared, prior to lodging at the National Herbarium of Victoria. The site is close to the Merri Creek Bike Trail, Coburg (near Melbourne) in a revegetated area.

### Description of fruit-body

#### *Macroscopic features*

Fruit-body: Small, height to 35 mm, width to 25 mm; coralloid, branched, branching three times; axils u-shaped; yellowish, staining green. Branches: Upright, cylindrical, slender; yellowish becoming green with age or bruising. Branch tips: Bluntly pointed; yellowish becoming dark green.

Stem: Short, length 10–15 mm, diameter 1–2 mm; white at base, greening towards first branching; usually buried below the surface of substrate and covered in downy white mycelium. At the stem base is a white mycelial mat with white rhizomorphs arising from the mat and extending into the substrate.

Spore print: Yellow.

#### *Microscopic features*

Spores: Pip-shaped to narrowly ellipsoidal; prominent, curved hilar appendage; finely roughened;  $6.0\text{--}8.5 \times 3.5\text{--}4.0\text{--}(5.0) \mu\text{m}$  ( $n=20$ ), mean  $7.04 \times 3.93 \mu\text{m}$ , Q (length to width ratio) 1.66–2.10.

#### Habit, substrate and habitat

Habit: Clustered groups, often in an arc around tree base.

Substrate: Ground amongst litter (mainly Lightwood *Acacia implexa* leaves at this site).

Habitat: In a revegetated metropolitan park with a coppice of Lightwoods, a solitary Swamp Gum *Eucalyptus ovata* and an understorey of Saltbush *Einadia trigonos* ssp. *trigonos*.



Fig. 1. *Ramaria abietina*, Merri Creek Trail. Photo by Marc Campobasso.



Fig. 2. *Ramaria abietina*, Merri Creek Trail. Photo by Ed Grey.

### Etymology

*Ramaria*: possessing branches; *abietina*, from the latin abies meaning fir tree. In the northern hemisphere, this fungus is often found with Spruce.

### Collection examined

MEL 2392603, 2 July 2015. Merri Creek Trail, near Fyffe St, Coburg. Collectors Grey EJ & PM, Campobasso M.

### Discussion

The spore dimensions of the recent collection from Victoria match those of Australian material provided by Young (2014): spores 5.8–7.9 (–8.6) × (2.5–)3.0–4.3(– 4.7) μm, mean Q 1.95, narrowly ellipsoid to lacrymiform, golden-yellow in mass under the microscope, hilar appendix prominent and curved, profile echinulate, ornamented with randomly scattered, acutely tipped spines 0.3–0.8(1.0) μm. Note that the spines were not resolvable with our microscope.

The distinguishing features of this fungus are its small size, the green staining which develops on bruising or with age, and the white mycelial mat with the associated white rhizomorphs. The small-size of the fruit-body and its yellow-green colour means that this coral could easily be overlooked or mistaken for a moss. While describing Northern Hemisphere material, Arora (1986), Breitenbach and Kranzlin (1986)

and Laessoe (2013) state that the habitat of this fungus is among conifers (more rarely hardwoods). According to Young (2014) Australian material has been found in 'fallen leaf mould' (first SA collection), on a 'wood-heap' (second SA collection), on mossy soil amongst litter in *Melaleuca lanceolata* woodland (Anglesea, Vic.), garden on soil composted with grass clippings and leaf litter (first Lane Cove collection). Young (2014) suggest 'dry eucalypt woodland on sandstone based soils' as the habitat for the Bradleys Head collection. The find in Melbourne extends both the range and habitat for this distinctive species. It is interesting that all known records are from coastal or near-coastal sites.

### References

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## One Hundred Years Ago

### THE FORESTS OF VICTORIA PART II.\*

by A. D. Hardy, F.L.S., Forests Department.

*From a paper read before the Field Naturalists' Club of Victoria, 8th November 1915*

#### VII.—REFORESTATION

Given rest from fires, the native hardwood forests perpetuate and even after fires restore themselves. As matured growths are removed, light penetrates more easily, and in an almost incredibly short space of time several straight saplings shoot up to fill the gap. The old trees, if left to decay, make breeding grounds for boring and other noxious insects and fungi; when falling destroy other growths; and when down litter the ground with *débris* which prevents seedling growth for many years, and makes fuel for ground fires. Against these defects there is, of course, the benefit derived by the soil from the mouldering tree in course of many years, and the advantages gained in conservation of stream flow by the retarding effect of the ground litter on the get-away of rains.

From *The Victorian Naturalist* XXXII, p. 117, December 9, 1915